

Letter from Alexander Graham Bell to Alexander Melville Bell, February 26, 1880, with transcript

ALEXANDER GRAHAM BELL TO HIS FATHER A. MELVILLE BELL 904 14th Street, N. W., Washington, D. C. Feb. 26th, 1880. Dear Papa:

I have just written to Mamma about Mabel's baby and I now write to you about my own! Only think! — Two babies in one week! The first born at 904 14th Street — on the fifteenth inst., the other at my laboratory on the nineteenth.

Both strong vigorous healthy young things and both destined I trust to grow into something great in the future.

Mabel's baby was light enough at birth but mine was LIGHT ITSELF! Mabel's baby screamed inarticulately but mine spoke with distinct enunciation from the first.

I have heard articulate speech produced by sunlight! I have heard a ray of the sun laugh and cough and sing! The dream of the past year has become a reality — the “Photophone” is an accomplished fact.

I am not prepared at present to go into particulars and can only say that with Mr. Tainter's assistance I have succeeded in preparing crystalline selenium of so low a resistance and so sensitive to light that we have been enabled to perceive variations of light as sounds in the telephone. In this way I have been able to hear a shadow, and I have even perceived by ear the passage of a cloud across the sun's disk.

Can Imagination picture what the future of this invention is to be! I dream of so many important and wonderful applications that I cannot bring myself to make known my discovery — until I have demonstrated the practicability of some of these schemes. I want to utilize the invention before giving it to the public — I want to perfect it — so 2 that

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we may talk by light to any visible distance — without any conducting wire between the speaker and the listener.

The Photophone we have been using — with papers giving descriptions of the apparatus and experiments made with it — are to be placed tomorrow in a tin box — and sealed up by us — and will then be deposited as a sealed package in the care of the Smithsonian Institution — to be opened only when permitted by me.

Some of the practical results to be obtained I clearly fore-see. When Electric Photophony is practiced in warfare the electric communications of an army could neither be cut nor tapped. On the ocean communication may be carried on by work of mouth between persons in different vessels when great distances apart — and light-houses may be identified by the sound of their lights.

In general science discoveries will be made by the Photophone that are undreamed of just now. Every variation of a light will produce a sound. The twinkling stars may yet be recognized by characteristic sounds — and storms and sun-spots be detected in the sun by noises produced by the Photophone. But let me leave prediction alone and conclude this letter. I have applications enough in my mind to have set me down as a madman if I could not give any better basis for my speculations than I have now. The necessary basis for sound reasoning must be demonstrated experimentally — by actually producing sounds in a distant place by the agency of light — before announcing the Photophone to the world. Therefore please consider this — for the recent — as a confidential communication. You are the grandfather of the Photophone and I want you to share my delight at my success.

Your loving son, Alec. Prof. A. Melville Bell, Brantford, Ont., Canada.

3

P. S. It is announced in the London “Echo” of the 7th inst., that the “Volta Prize (50,000 francs)” has been awarded to “Prof. A. Graham Bell” “by the committee appointed by the

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Minister of Public Instruction in France.” I don't know anything about it as yet but if true I will put the money into experimental apparatus to develop the Photophone. Alec.